1. CF0.5E、CF0.5M、CF0.8E、CF0.8M type

1.1 Summary

CF0.5M
CF0.8M

Fig. 1-1

CF0.5E
CF0.8E

Fig. 1-2

MODEL	NOTE
CF0.5M CF0.5E CF0.8M CF0.8E	CE 1Ph 220-230V 50Hz R134a

1.2 Technical specifications

Table 1-1

Model		CF0.5M	CF0.5E	CF0.8M	CF0.8E
Power supply		1Ph 220-230V 50Hz			
Dehumidifying Capacity (L/day)		12		20	
Rated input (W)		210		400	
Rated current (A)		0.9		1.8	
Air flow (M^3/h)		120		150	
Motor	Fan speed (rpm)	520/450/400		570/510/450	
	Output power (W)	5.5		5.5	
	Working capacitor (uF)	1			
Fan type/piece		Axial fan-1			
Diameter -length		234-46			
Evaporator		Aluminum fin-copper tube			
Row-fin distance (mm)		10-1.8		12-1.6	
Working area (m^2)		0.047		0.056	
Condenser		Aluminum fin-copper tube			
Row-fin distance (mm)		10-1.3		12-1.3	
Working area (m^2)		0.047		0.056	
Compressor model		Rotary			
Compressor		XB357VMCC		YB645VMCC	
Power (W)		170		295	
Protect equipment		LYDN 96X		LYGN 78X	
Starting method		capacitor			
Working current (A)		0.8		1.4	
Working temp.		Exhaust temperature ⩽ 115℃			
Compressor capacitor (uF)		4.8		6.5	
Throttling method		Capillary			
Fuse(A)		3.15		3.15	
Noise (dB(A))		41		43	
dimension	Width (mm)	380			
	Height (mm)	545			
	Depth (mm)	261.5			
Net weight (kg)		12.5		14	
Refrigerant		R134a			
Refrigerant charge(g)		140		170	

The technical data are subject to change without notice .Please refer to the nameplate of the unit.

1.3 Outlines and dimensions

Fig. 1-3

Fig. 1-4

Fig. 1-5

Fig. 1-6

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1.4 Explosive view and spare parts list

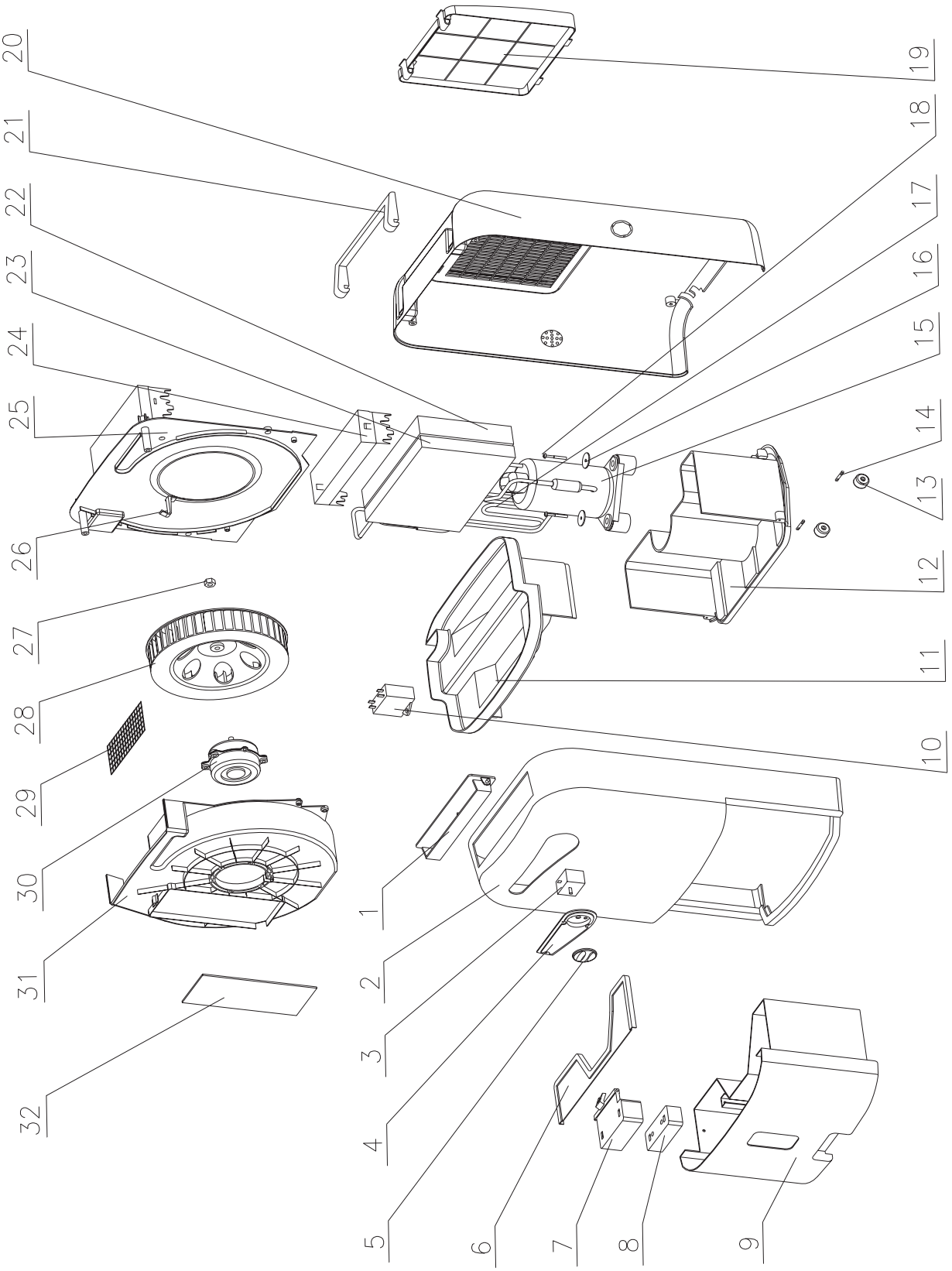


Fig. 1-7

Table 1-2

No.	Description		Part No.				Qty
			CF0.5M	CF0.5E	CF0.8M	CF0.8E	
1	Air guider	导风板	10512384	10512384	10512384	10512384	1
2	Front case	面壳	01513420	01513420	01513420	01513420	1
3	Main switch	主令开关	45010301	/	45010301	/	1
	Lo-volt PCB	控制器弱电板 18F1	/	30021001	/	30021001	1
4	Knob supporting plate	旋钮板	70411204	/	70411204	/	1
	Button supporting plate	按钮板	/	45037004	/	45037004	1
5	Knob	旋钮	20106010	/	20106010	/	1
6	Protecting plate	保护板	01491531	01491531	01491531	01491531	1
7	Buoy supporter	浮标卡	12497002	12497002	12497002	12497002	1
8	Buoy	浮子	12497001	12497001	12497001	12497001	1
9	Water tank	水箱	20186505	20186505	20186505	20186505	1
10	Comp. Capacitor	压缩机电容 4.8UF/450VAC	33000028	33000028	/	/	1
		压缩机电容 6.5UF/450VAC	/	/	33010032	33010032	1
11	Water tray	接水盘	12412050	12412050	12412050	12412050	1
12	Base assy	底盘	22226504	22226504	22226504	22226504	1
13	Castor	脚轮	24236551	24236551	24236551	24236551	2
14	Crank	轮轴	10546521	10546521	10546521	10546521	2
15	Compressor	压缩机XB357VMCC	00100040	00100040	/	/	1
		压缩机YB645VMCC	/	/	00100041	00100041	1
16	Gasket	垫片	70411201	70411201	70411201	70411201	3
17	Pipes	管路系统	06106421	06106421	06102422	06102422	1
18	Bolt	压缩机螺钉	70140555	70140555	70140555	70140555	3
19	Filter	过滤网	11126503	11126503	11126503	11126503	1
20	Rear case	后壳	01513413	01513413	01513413	01513413	1
21	Handle	把手	26233432	26233432	26233432	26233432	1
22	Evaporator	蒸发器	01036501	01036501	01036503	01036503	1
23	Condenser	冷凝器	01136501	01136501	01136503	01136503	1
24	Fixing clamp	两器卡	20196501	20196501	20190000	20190000	1
25	Cover of propeller housing	蜗壳盖	12104110	12104110	12104110	12104110	1
26	Positioning sticker	导风板制	10511133	10511133	10511133	10511133	1
27	Nut	螺母 M8	70310133	70310133	70310133	70310133	1
28	Centrifugal fan	风叶	10356501	10356501	10356501	10356501	1
29	Grille	格栅	22416551	22416551	22416551	22416551	1
30	Motor	电机 CF6A	15016501	15016501	15016501	15016501	1
31	Propeller housing	蜗壳	12102010	12102010	12102010	12102010	1
32	PCB	控制器电路板 1701	30021002	/	30021002	/	1
	PCB	控制器强电板 18F1	/	30021001	/	30021001	1

The data are subject to change without notice.

1.5 Circuit diagram

1.5.1 Circuit diagram for CF0.5M、CF0.8M

This circuit diagrams are subject to change without notice.
Please refer to the ones stuck on the machines.

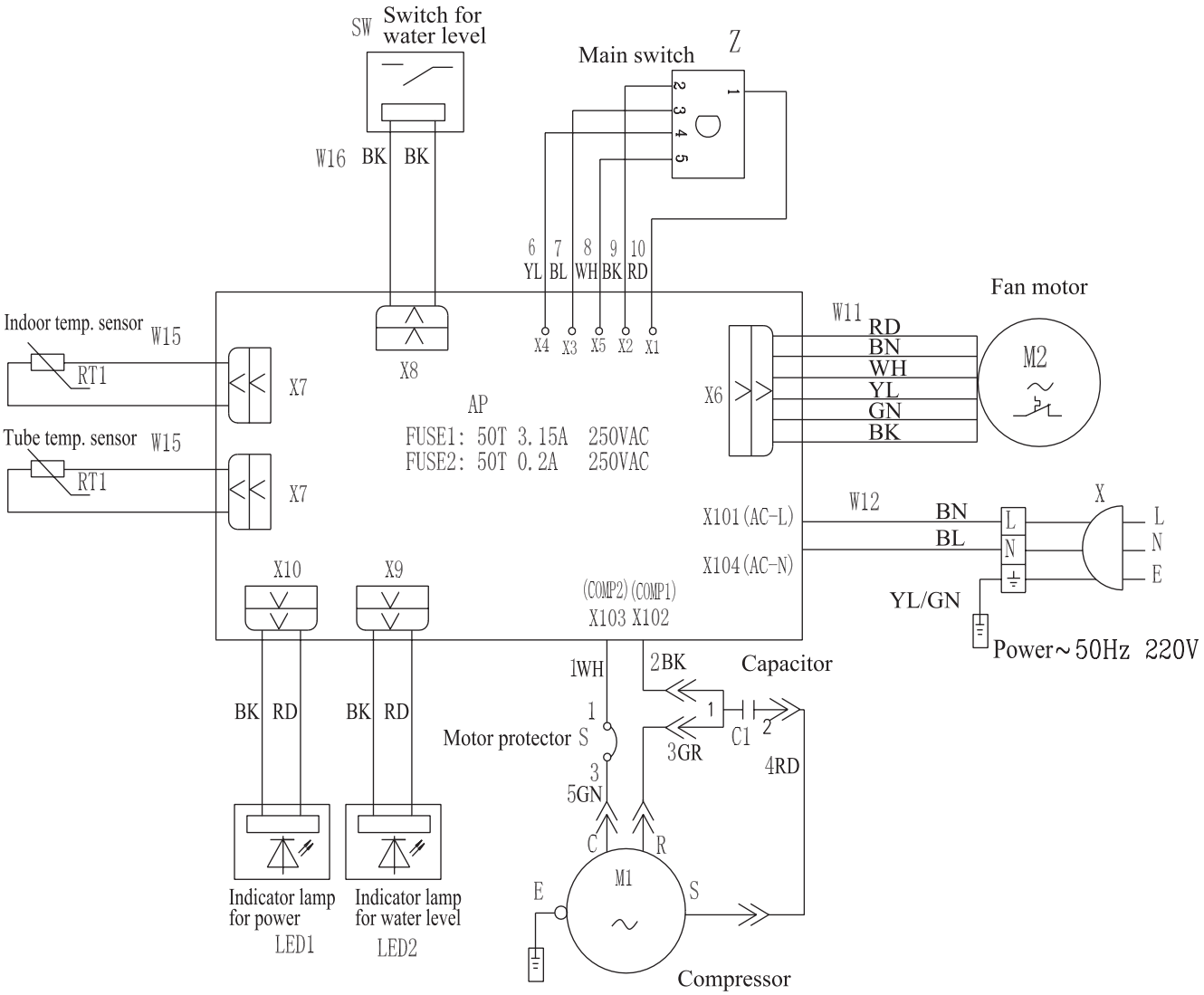


Fig. 1-8

1.5.2 Circuit diagram for CF0.5E、CF0.8E

This circuit diagrams are subject to change without notice.
Please refer to the ones stuck on the machines.

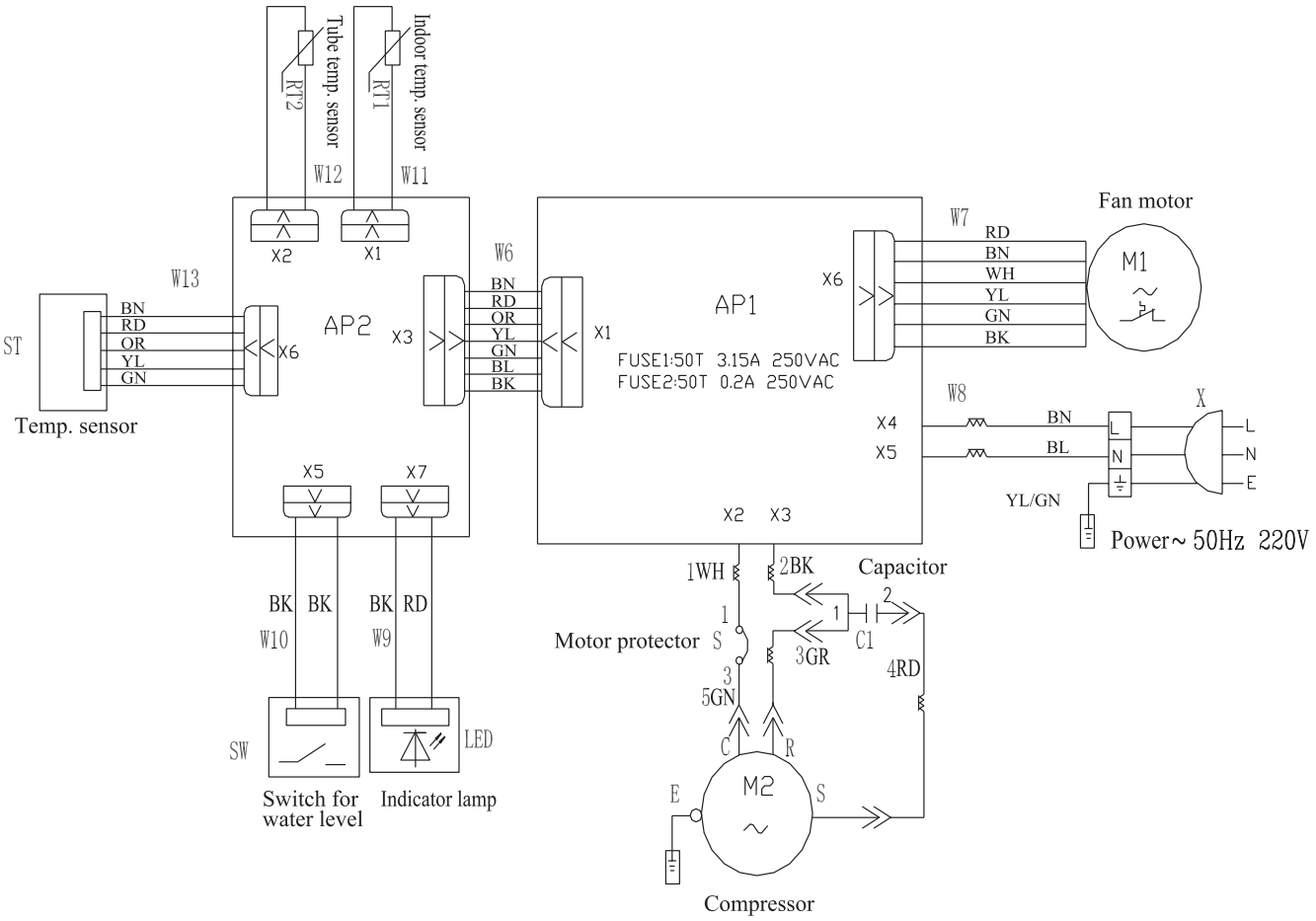


Fig. 1-9

1.6 PCB function manual

Control for M type

A. Main control function: Dehumidify

B. Aim of the control

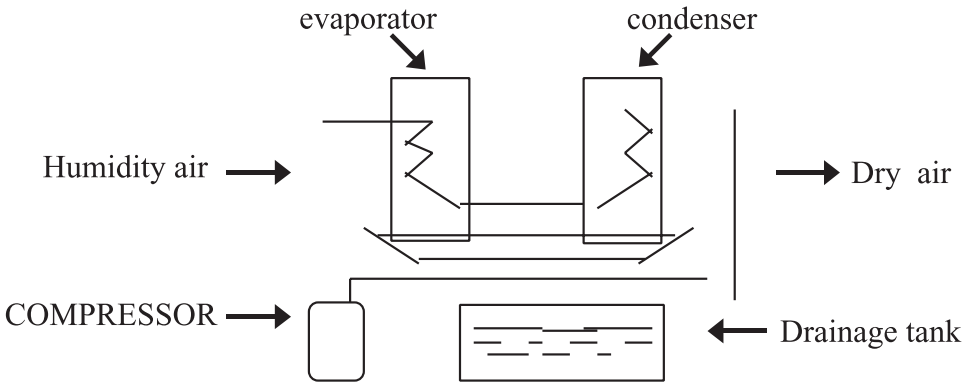
1. Fan motor:(include drying clothes , dehumidifying and silence
2. Compressor
3. Full lamp
4. Power lamp

C.The input parameter of the PCB

1. Temperature of the environment : T Ring(Detect only before the starting of the compressor)
2. Temperature of the tube of the Evaporator : T Tube(the same tube temperature sense as T Ring)
3. Liquid switch: S Liquid
4. Quick detect switch
5. Work mode of the main switch

D. Work voltage 220-230V Frequency 50Hz

E. Systematic diagram of the dehumidifying cycle



F. The way of the control in each mode

This unit have only one Main Switch, including OFF, silence, dehumidifying and drying clothes. When the unit is connected with power, the power lamp light.

1. OFF: turning the switch to “OFF”, the unit will stop running.
2. Silence: compressor startup, fan motor is running at low wind speed;
3. Dehumidifying: compressor startup, fan motor is running at medium wind speed;
4. Drying clothes: compressor startup, fan motor is running at high wind speed;

G. Protect function

1. Work range: set T1=4℃, T2=35℃, when T Ring <=T1-1℃ or T Ring >=T2+1℃, compressor doesn't start in order to protect the units from working in bad environment, and fan motor maintain running state.
2. 3 minutes protect : After you stop running, put through power supply to renew start, fan motor startup, compressor automatically delay 3 minutes to startup.
3. Water full protection: when water is full in water tank, Full Lamp will light, compressor will stop, and fan motor maintain running state.
4. Anti-freezing function : After the compressor start for 10 minutes, if detect T Tube<=-5℃ for continuous 3 minutes, compressor will stop, and Fan motor maintain running state; when T Tube>=4℃ or the time of the defrosting reach 20 minutes,compressor will reset, and fan motor maintain running state.
5. Tube Temperature Sensor Protect : When detect T Tube<=-30℃ or T Tube>=80℃, system run into OFF mode, only the power lamp light.

H. Quick detect function

When S quick detector is in short circuit, running one second will consider as one minute. This function only use for test, in usual time S quick detector should break.

Control for E type

A. Main control function: Dehumidify

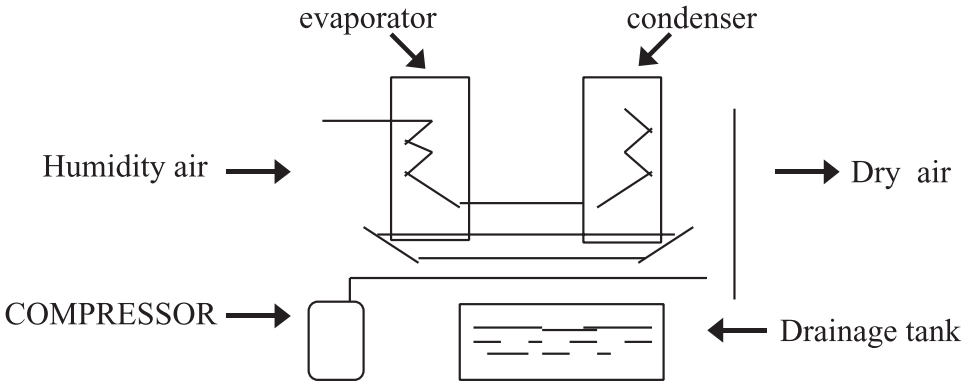
B. Aim of the control

1. Fan motor:(include drying clothes, dehumidifying and silence)
2. Compressor
3. Mode lamp(drying clothes , dehumidifying and silence)
4. humidity lamp(continuous dehumidify, 50%, 60%, 70%)
5. Full lamp

C. The input parameter of the PCB

1. Temperature of the indoor environment : T Ring(Detect only before the starting of the compressor)
2. Temperature of the tube of the Evaporator : T Tube(the same tube temperature sense as T Ring)
3. Humidity of the indoor environment :H Ring
4. Power switch :S switch
5. Mode switch : S mode
6. Humidity select : S humidity
7. Liquid switch: S Liquid
8. Quick detect switch :S quick detector

D. Systematic diagram of the dehumidifying cycle



E. Main control function

1. Control key

(1) S switch : Control On and Off. When adding electricity, power lamp light, press switch key to start running with default mode, press switch key again to stop running.

(2) S mode : Press this key, you can control system's 4 mode, corresponding mode indicator light will bright: silence (low wind speed) →dehumidify (medium wind speed) → drying clothes (high wind speed). Starting default mode is dehumidify mode.

(3) S humidity : Set dehumidify of room, 4 kinds : continuous dehumidify、50%、60%、70%. corresponding mode indicator light will bright. Starting default mode is continuum mode.

2. Humidity control:

Press the humidity select key, the unit will run continuously without the humidity compare in 10 seconds.

50%: when detect H Ring<45%, stop the unit, H Ring>55%, run the unit;

60%: when detect H Ring<55%, stop the unit, H Ring>65%, run the unit;

70%: when detect H Ring<65%, stop the unit, H Ring>75%, run the unit;

continuous dehumidify: the unit runs continuously.

3. Mode

The system have 4modes: Off, Dehumidify, Drying clothes and Silence.

OFF : compressor and fan motor stop, mode lamp and humidity lamp extinguish, power lamp light..

Dehumidifying: humidity lamp light, others extinguish; fan motor is running at medium wind speed, compressor startup;

Drying clothes: Drying clothes lamp light, others extinguish; fan motor is running at high wind speed, compressor startup;

Silence: Silence lamp light, others extinguish; fan motor is running at low wind speed, compressor startup.

4. Protect function

(1) Work range: set T1=2℃, T2=38℃, when T Ring <=T1-1℃ or T Ring >=T2+1℃, compressor don't start in order to protect the units from working in bad environment, and humidify lamp light, humidify and switch key is active, mode key is inactive.

(2) 3 minutes protect : After you stop running, put through power supply to renew start, fan motor startup, compressor automatically delay 3 minutes to startup.

(3) Water full protection: when water is full in water tank, Full Lamp will light, compressor and fan motor will stop.

(4) Anti-freezing functior : After the compressor start for 10 minutes, if detect T Tube<=-5℃ for continuous 3 minutes, compressor will stop, and Fan motor maintain running state; when T Tube>=4℃ or the time of the defrosting reach 20 minutes, compressor will reset, and fan motor maintain running state.

(5) High temperature mode: when T Ring >=35, the high temperature mode startup, Fan motor only can ran at high speed, and mode key is inactive.

F. Quick check function

When S quick detector is in short circuit, running one second will consider as one minute. This function only use for test, in usual time S quick detector should break.

2. CF0.5M/A、CF0.7M/A、CF0.8M/A type

2.1 Summary

Fig. 2-1

MODEL	NOTE
CF0.5M/A	CE
CF0.7M/A	1Ph 230V 50Hz
CF0.8M/A	R134a

2.2 Technical specifications

Table 2-1

Model		CF0.5M/A	CF0.7M/A	CF0.8M/A
Power supply		1Ph 230V 50Hz		
Dehumidifying Capacity (L/day)		12	16	20
Rated input (W)		250	420	530
Rated current (A)		1.1	1.9	2.4
Air flow (M^3/h)		150	150	150
Motor	Fan speed (rpm)	900/740		
	Output power (W)	6		
	Working capacitor (uF)	1.5		
Fan type/piece		Axial fan-1		
Diameter -length		160-58		
Evaporator		Aluminum fin-copper tube		
Row-fin distance (mm)		7-1.8	8-1.8	8-1.8
Working area (m^2)		0.053		
Condenser		Aluminum fin-copper tube		
Row-fin distance (mm)		7-1.8	8-1.8	8-1.8
Working area (m^2)		0.053		
Compressor model		Reciprocating		
Compressor		AE1340YZ	AE1360YZ	AE1370YZ
Power (W)		230	297	350
Protect equipment		4TM232PFB	4TM424PFB	4TM435PFB
Starting method		PTC		
Working current (A)		1.55	1.9	2.1
Working temp.		Exhaust temperature ⩽ 115℃		
Throttling method		Capillary		
Fuse(A)		3.15		
Noise (dB(A))		45	47	48
dimension	Width (mm)	302		
	Height (mm)	594		
	Depth (mm)	285		
Net weight (kg)		17.5	18	18.5
Refrigerant		R134a		
Refrigerant charge(g)		200	230	260

The technical data are subject to change without notice .Please refer to the nameplate of the unit.

2.3 Outlines and dimensions

Fig. 2-2

Fig. 2-3

Fig. 2-4

Fig. 2-5

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2.4 Explosive view and spare parts list

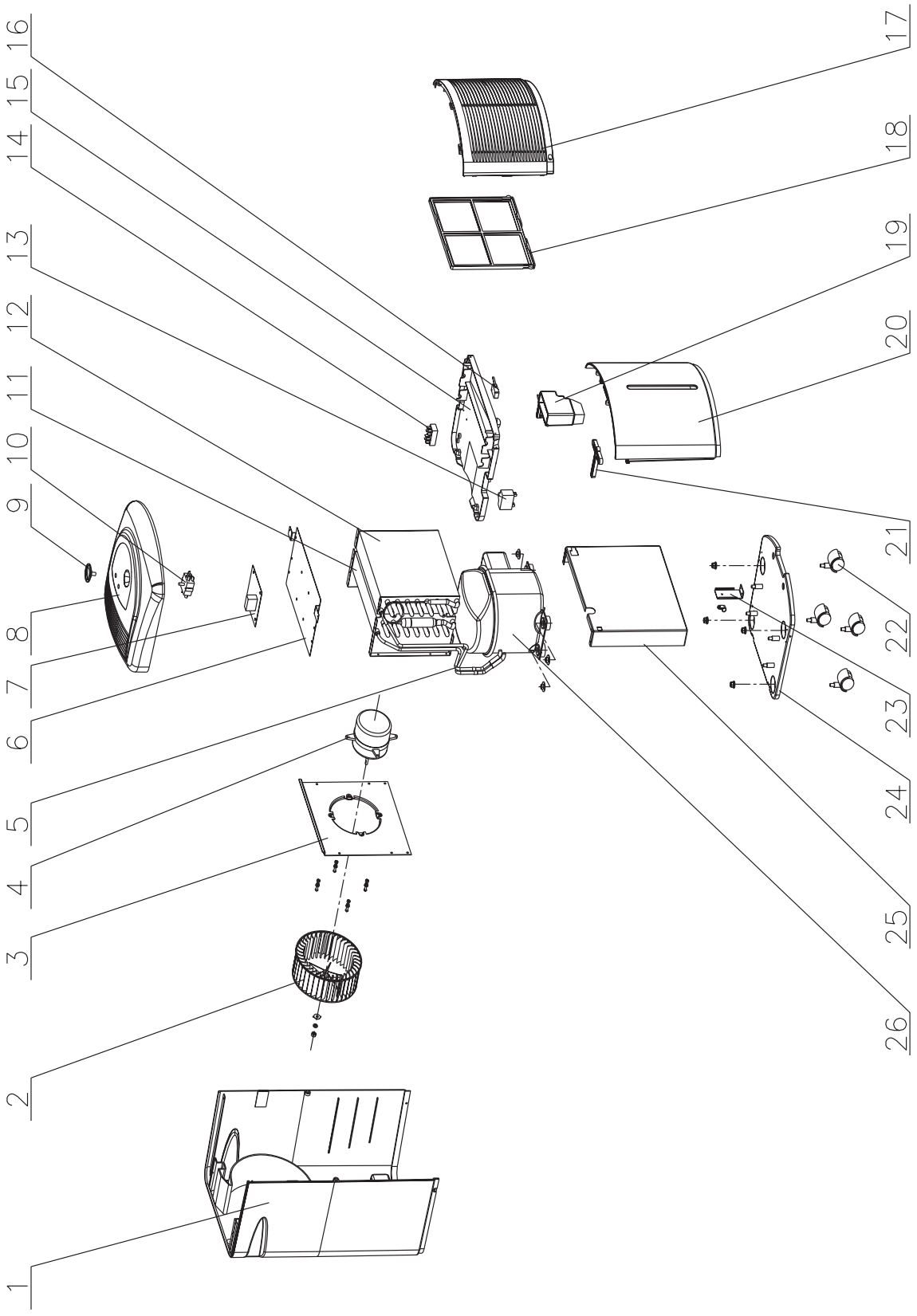


Fig. 2-6

Table 2-2

No.	Description		Part No.			Qty
			CF0.5M/A	CF0.7M/A	CF0.8M/A	
1	Rear case	后壳	22206512	22206512	22206512	1
2	Fan	风叶	10516508	10516508	10516508	1
3	Board for installing motor	电机安装板	01336503	01336503	01336503	1
4	Fan motor CF6C	风扇电机 CF6C	15016502	15016502	15016502	1
5	Pipeline	管路系统	06106503	06106502	06106501	1
6	Board for installing controller	控制器安装板	01336502	01336502	01336502	1
7	PCB1901	控制器 1901	30021009	30021009	30021009	1
8	Top cover	顶盖	22246506	22246506	22246506	1
9	Knob II	旋钮 II	45036502	45036502	45036502	1
10	main switch	主令开关	45016505	45016505	45016505	1
11	Condenser assy	冷凝器组件	01106507	01106506	01106506	1
12	Evaporator assy	蒸发器组件	01006507	01006506	01006506	1
13	Capacitor CBB61(2uF/450VAC)	电容CBB61(2uF/450VAC)	33010025	33010025	33010025	1
14	Terminal board 2-8	接线板 2-8	42011103	42011103	42011103	1
15	Water tray	接水盘	20186506	20186506	20186506	1
16	Switch for water level	液位开关	45016506	45016506	45016506	1
17	Front plate	面板	20006506	20006506	20006506	1
18	Filter	过滤网	11126506	11126506	11126506	1
19	Buoy	浮标	26116510	26116510	26116510	1
20	Water box	水箱	20186509	20186509	20186509	1
21	Handle	提手	26236501	26236501	26236501	1
22	Truckle	脚轮	24236553	24236553	24236553	4
23	Strip for fixing power cord	电源线固定条	01726505	01726505	01726505	1
24	Meter base	底盘	01216502	01216502	01216502	1
25	Isolation sheet	隔板	01236501	01236501	01236501	1
26	Compressor and fittings	压缩机及其配件 AE1340YZ	00100153	/	/	1
		压缩机及其配件 AE1360YZ	/	00100154	/	1
		压缩机及其配件 AE1370YZ	/	/	00100152	1

The data are subject to change without notice.

2.5 Circuit diagram

This circuit diagrams are subject to change without notice.
Please refer to the ones stuck on the machines.

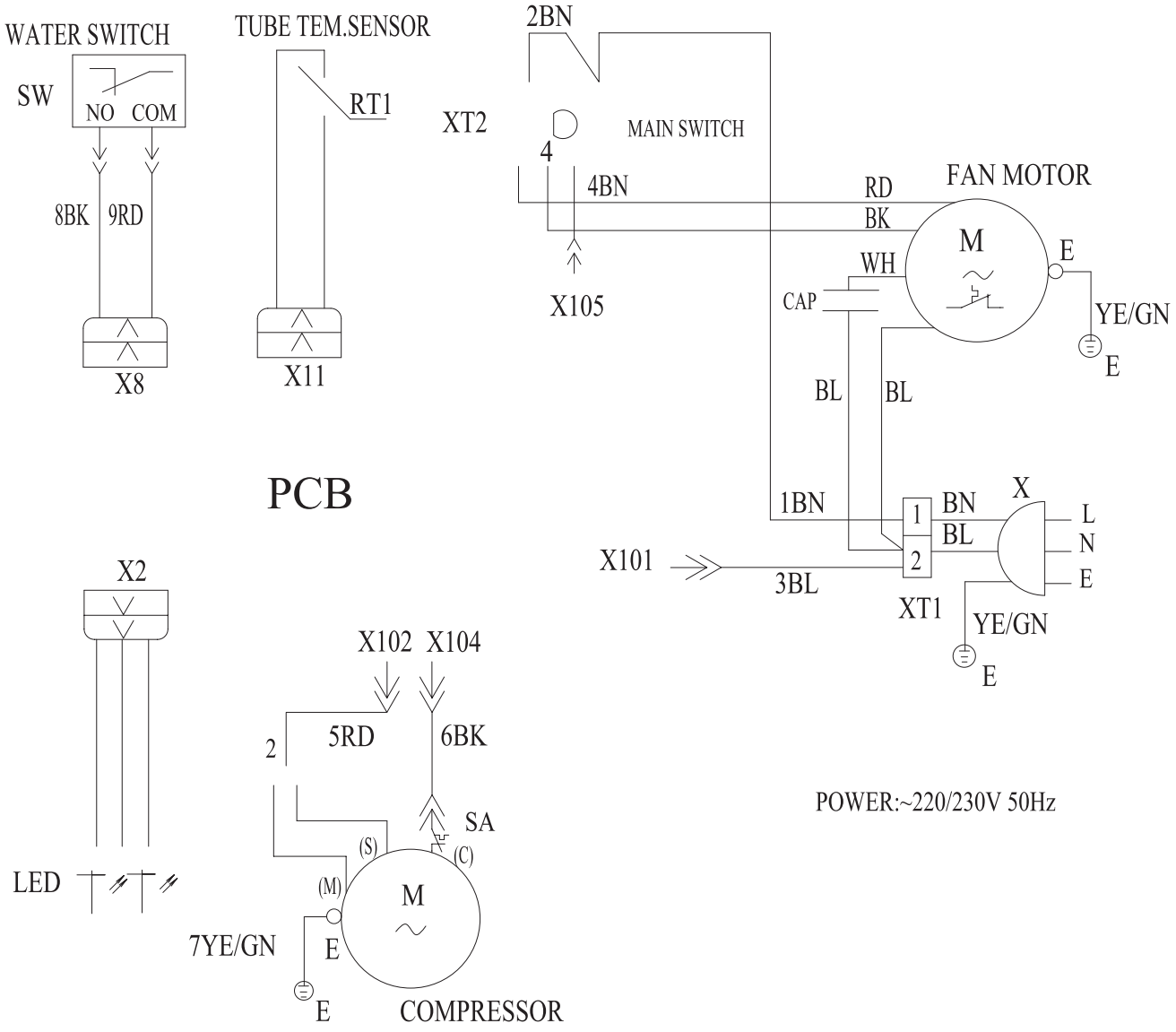


Fig. 2-7

2.6 PCB function mannul

A. Main control function: Dehumidify

B. Aim of the control

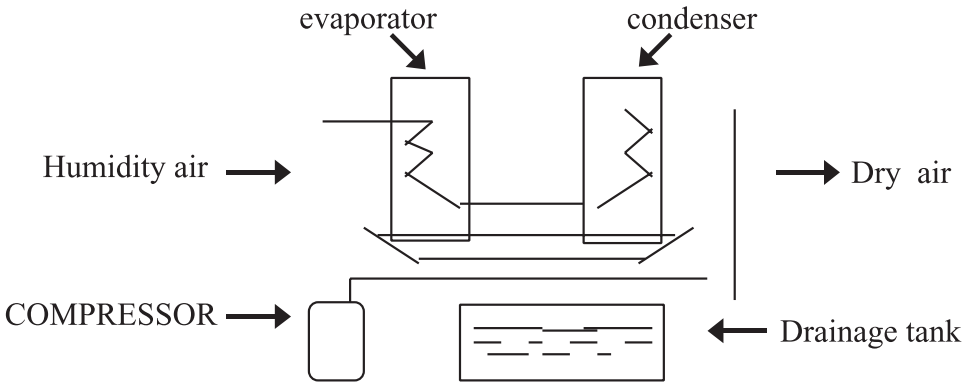
1. Fan motor:(include low speed and high speed)
2. Compressor
3. Full lamp
4. Power lamp

C. The input parameter of the PCB

1. Temperature of the environment: T Ring(Detect only before the starting of the compressor)
2. Temperature of the tube of the Evaporator :T Tube(the same tube temperature sense as T Ring)
3. Liquid switch: S Liquid
4. Quick detect switch
5. Work mode of the main switch

D. Work voltage 230V Frequency 50Hz

E. Systematic diagram of the dehumidifying cycle



F. The way of the control in each mode

This unit have only one Main Switch, including OFF,LOW and HIGH three sites.

When the unit is connected with power, the power lamp light.

1. OFF: turning the control switch to “OFF”, the unit will stop running.
2. Low: Turn the control switch to “Low”, compressor will start if only the condition permits, and the fan motor will run at low speed.
3. High: Turn the control switch to “High”, compressor will start if only the condition permits, and the fan motor will run at high speed.

G. Protect function

1. Work range: set T1=4℃, T2=35℃, when T Ring <=T1-1℃ or T Ring >=T2+1℃, compressor don’t start in order to protect the units from working in bad environment, and fan motor maintain running state.

2. 3 minutes protect : After you stop running, put through power supply to renew start, fan motor startup, compressor automatically delay 3 minutes to startup.
3. Water full protection: when water is full in water tank, Full Lamp light, compressor will stop, and fan motor maintain running state.
4. Anti-freezing function : If the compressor has run for 10 minutes, and detect T Tube<=-5℃ for continuous 3 minutes, compressor will stop, and Fan motor maintain running state.
5. Tube Temperature Sensor Protect : When detect T Tube<=-20℃ or T Tube>=80℃, system run into OFF mode, only the power lamp light.

H. Quick detect function

When S quick detector is in short circuit, running one second will consider as one minute. But in anti-freezing mode, the quick detector will work in this way : after compressor's starting for 20 seconds, if checked tube temperature<-5℃, anti freezing starts work, compressor stop and fan motor maintain running state. The compressor will not start until detected tube temperature>4℃. This function only use for test, in usual time S quick detector should break.

TECHNICAL SERVICE MANUAL

—— Dehumidifier Series

GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI
Jinji West Rd. Qianshan Zhuhai
Guangdong China

Introduction

In this technical service manual, you will find rich references to Dehumidifier Series products, including photos, technical specifications, explosive views, spare parts lists and circuit diagrams. Service people and engineers of Gree's customers and distributors would find it a very handysource of technical information of our products.

Technical Support Department
GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI
Nov. 2002

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